

**STUDY #4 ASSESS RELATIONSHIP OF FISH/WILDLIFE MANAGEMENT AND RECREATION***November 21, 2001***1.0 INTRODUCTION/BACKGROUND**

During the scoping and issues identification phase of this project's relicensing effort, issues have been raised regarding the role the California Department of Fish and Game (DFG) can play to enhance recreational opportunities within the Study Area. (e.g., emphasis on steelhead and salmon, and establishing bank fishing sites around campground areas). This study will examine the relationship between fish and wildlife management and recreational opportunities within the Study Area. It will utilize information from United States Fish and Wildlife Service (USFWS) studies on wildlife-related recreation (1991, 1996) (Attachment A).

**2.0 STUDY OBJECTIVE**

The main objective of this study is to identify the effects of fish and wildlife management on providing recreational opportunities within the Study Area. This study will assess the current range of hunting, fishing, wildlife viewing, and nature study opportunities currently provided within the Study Area. It will also identify the fish and wildlife management actions needed to maintain or enhance those opportunities.

**3.0 RELATIONSHIP TO RELICENSING/NEED FOR THE STUDY**

This study is needed to determine how fish and wildlife management efforts within the Study Area can maintain or enhance opportunities for wildlife-related recreation. Federal Energy Regulatory Commission (FERC) guidelines require the licensee to "cooperate with local, state, and federal agencies in the determination of public recreation needs and to cooperate in the preparation of plans to meet those needs, including those for sport fishing and hunting" (Part 2, Subchapter A, Chapter 1 of 18 CFR).

This study will address Issue Statement R6—appropriate management of fisheries and wildlife resources to provide recreation opportunities. Specifically this study will address Issues RE 48, 63, and 107-109.

**4.0 STUDY AREA**

Lands and waters within and adjacent to (1/4 mile) the FERC project boundary will be studied. Adjacent lands, facilities, and areas with a clear project nexus will also be studied. Specifically, the following areas will be given priority in this assessment:

- Lake Oroville
- Thermalito Afterbay
- North Thermalito Forebay
- South Thermalito Forebay
- Oroville Wildlife Area (OWA) including the Feather River adjacent to the OWA (from 2.5 miles below Palermo Road to Lake Oroville Boulevard/Highway 162)
- Feather River between Lake Oroville Dam and Lake Oroville Boulevard/Highway 162
- Feather River Fish Hatchery

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## 5.0 GENERAL APPROACH

### Task 1—Develop an Understanding of DFG Management Issues

The first task will be to gain insight into the management practices currently employed by DFG to provide for fish and wildlife-related recreational opportunities. The research team will interview DFG staff and review policy-related documents and management plans. The research team will develop an understanding of legal and policy constraints under which DFG must operate. It will identify the necessary staffing levels and budget to accomplish DFG management activities. Finally, the research team will develop insight into current issues faced by DFG. Researchers will also document known DFG maintenance issues as well as those predicted to become problematic. Additionally, the research team will discuss fish and wildlife management issues with USFWS and National Marine Fisheries Service (NMFS) representatives.

### Task 2—Assess Existing Hunting, Fishing, Wildlife Viewing, and Nature Study Opportunities

Researchers will gather information about hunting, fishing, wildlife viewing, and nature study opportunities currently provided within the Study Area. This will be accomplished by reviewing documents, interviewing DFG area managers, local stakeholders, and conducting site visits. It will also be accomplished by using data collected in Study #13—Recreation Surveys. In particular, the responses of the angler target group will be analyzed in depth to assist in completing this task.

### Task 3—Assess Methods for DFG to Maintain Existing Fish and Wildlife-related Recreation Opportunities

During Task 3, emphasis will be placed on assessing methods to maintain existing Study Area hunting, fishing, wildlife viewing, and nature study opportunities. This will be accomplished by reviewing documents, contacting DFG area managers, and conducting site visits.

For example, there may be parts of the Study Area, such as Thermalito North Forebay, where bird watching occurs. According to DWR, there are 178 species of birds found in and around the Study Area (DWR 2000). Researchers could work with DFG and other people interested in maintaining bird watching opportunities. This Task would assess where these opportunities occur, why they occur, and what needs to be done to keep them from decreasing. It may involve maintaining buffers from other activities and developments in specific areas waterfowl inhabit. Or, it may involve developing bird-watching blinds or trails in specific areas to maintain bird watching opportunities as proposed developments eliminate current bird-watching access.

Researchers will also conduct this task from the perspective of maintaining existing opportunities through the next license period. This will be accomplished by examining findings from Study #12—Projected Recreation Use. For example, the level of effort necessary to maintain the resource for current use may not be adequate for use levels in the future.

### Task 4—Assess Methods for DFG to Enhance Existing Fish and Wildlife-related Recreation Opportunities

Researchers will gather information about DFG management of the Study Area to understand how existing wildlife-related recreational opportunities can be enhanced. This will be accomplished by reviewing documents, interviewing DFG area managers, local stakeholders, and conducting site visits. Emphasis will be placed on how existing Study Area hunting, fishing, wildlife viewing, and nature study opportunities can be improved.

For example, researchers would work with DFG managers to determine how to enhance warm and cold-water fishing opportunities. Warm-water fishing is typically lake-surface or shallow-area fishing for species such as bass. Cold-water fishing is typically deep-water lake or river fishing for species such as trout or salmon. Researchers will consult with DFG managers, fishing interest groups, and use on-site angler questionnaires to gain knowledge about enhancements. Possibly there are several attainable methods to enhance these opportunities. Is access to cold-water sites currently impeded by a constraint that can be removed? Is there the need for habitat enhancements in shallow parts of Lake Oroville that would enhance bass populations?

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Researchers will document the ideas that are uncovered and make suggestions that will be considered as recommendations for inclusion in Study #17, Needs Assessment.

## **6.0 RESULTS AND PRODUCTS/DELIVERABLES**

### ***Results***

Results will be used to maintain and enhance fish and wildlife-related recreational opportunities for the current time period and during the next license period. These results will be incorporated into Study #17—Recreation Needs Analysis.

### ***Products/Deliverables***

The following products will be developed for this study:

- Interim Report
- Draft Final Report

Both reports will include an executive summary; an introduction; objectives; methods; results; and recommendations for changing DFG management to help enhance recreational opportunities within the Study Area.

## **7.0 COORDINATION AND IMPLEMENTATION STRATEGY**

### ***Coordination with Other Resource Areas/Studies***

This study will require coordination with Study #5—Assess Recreation Areas Management; Study #9—Existing Recreation Use; Study #10—Recreation and Facility Condition Inventory; and Study #11—Recreation and Public Use Impact Assessment. It will also require coordination with studies conducted by the Environmental Work Group, and with the land management study conducted by the Land Use Work Group. This study will serve as input to Study #17—Recreation Needs Analysis. RS-13 and T-8

### ***Issues, Concerns, Comments Tracking, and/or Regulatory Compliance Requirements***

The results of the study will address Issue Statement R6—Appropriate management of fisheries and wildlife resources to provide recreational opportunities. This study will specifically address Issues RE 48, 63, and 107-109.

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## 8.0 STUDY SCHEDULE

Data collection: January through April 2003.

Report writing and data analysis: May through August 2003.

Interim Report due: June 2003.

Draft Final Report due: September 2003.

### References:

Department of Water Resources. 2000. Website: <http://www.dwr.water.ca.gov/LakeOroville/> December 3, 2001.

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## ATTACHMENT A. EXISTING INFORMATION

### California State Department of Fish and Game

1. 1999-2000 Guide to California's State-Operated Hunting Areas. (1999). California Waterfowl Association and Bismuth Cartridge Co.
2. Hunting and Other Public Uses on State and Federal Areas. (1999). Sacramento, CA.
3. Resident Annual Sportfishing License Sales by County. 1987-1998. (1999). Excel Database File. Sacramento, CA.
4. Resident Annual Hunting License Sales by County. 1987-1997. (1999). Excel Database File. Sacramento, CA.
5. 1997 and 1998 Hunt Results Comparison List. Wildlife Programs Branch. (1999). (<http://www.dfg.ca.gov/shoot/comp98.html>).
6. Maps of Selected State and Federal Wildlife Areas/Refuges in California. (1999). ([http://www.dfg.ca.gov/wildlife\\_areas/areamaps.html](http://www.dfg.ca.gov/wildlife_areas/areamaps.html)).
7. Fish and Game Fact Sheet. Public Affairs/Conservation Education. (1999). (<http://www.dfg.ca.gov/lands/dfglands.html>).
8. Lands Inventory Fact Sheet. Public Affairs/Conservation Education. (1999). (<http://www.dfg.ca.gov/coned/factshet.html>).

### US Fish and Wildlife Service

1. The National Survey of Fishing, Hunting, and Wildlife-Associated Recreation. 1999. Background, 1996 Survey Information, Survey Content, Reports and Products, Highlights and Trends. (<http://fa.r9.fws.gov/surveys/surveys.html>).
2. 1996 National Survey of Fishing, Hunting and Wildlife-Associated Recreation. California. 1998. US Department of the Interior and US Department of Commerce. Washington, DC.
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4. 1991 National Survey of Fishing, Hunting, and Wildlife-Associated Recreation. 1993. US Department of the Interior and US Department of Commerce. Arlington, VA.
5. 1985 National Survey of Fishing, Hunting, and Wildlife-Associated Recreation. 1988. US Department of the Interior and US Fish and Wildlife Service. Washington, DC.
6. 1980-1995 Participation in Fishing, Hunting, and Wildlife Watching: National and Regional Demographic Trends. 1999. Report 96-5. Division of Federal Aid. Washington, DC.